International Journal of Academic Health and Medical Research (IJAHMR)
ISSN: 2643-9824
Vol. 9 Issue 7 July - 2025, Pages: 25-28

Extra-pelvic endometriosis : an imaging review: Regarding three cases.

S. KHAIRALLAH[1], M.GHFIR[1], H.OUAZZANI[1], .I.CHAOUCHE[2], A.AKAMMAR[1], N. EL BOUARDI[2], B. ALAMI[2], Y. ALAOUI LAMRANI[2], M. MAAROUFI[2], M. BOUBBOU[1]

1/ Radiology department of the mother and child hospital, CHU Hassan II, Sidi Mohammed Ben Abdallah University, Fez.

2/ Radiology Department of the hospital of specialties, CHU Hassan II, Sidi Mohammed Ben Abdallah University, Fez.

Abstract: *Endometriosis, a chronic inflammatory condition affecting 10-15% of reproductive-age women, is characterized by the presence of endometrial glands and stroma outside the uterine cavity, often causing pain and infertility. Deep endometriosis is distinguished by nodules larger than 5 mm and differs from peritoneal and ovarian types. The most widely accepted pathogenesis theory is retrograde menstruation, where endometrial cells migrate to the abdominopelvic cavity during menstruation, surviving and implanting based on local and immunologic factors. While pelvic sites such as the pouch of Douglas, retrocervix, and bladder are commonly affected, deep endometriosis can also occur in extra-pelvic locations, including the diaphragm, pleura, and even distant sites like the central and peripheral nervous systems via lymphatic or hematologic spread. Diagnosing and managing extra-pelvic deep endometriosis, especially when involving critical organs, is challenging and often delayed.*

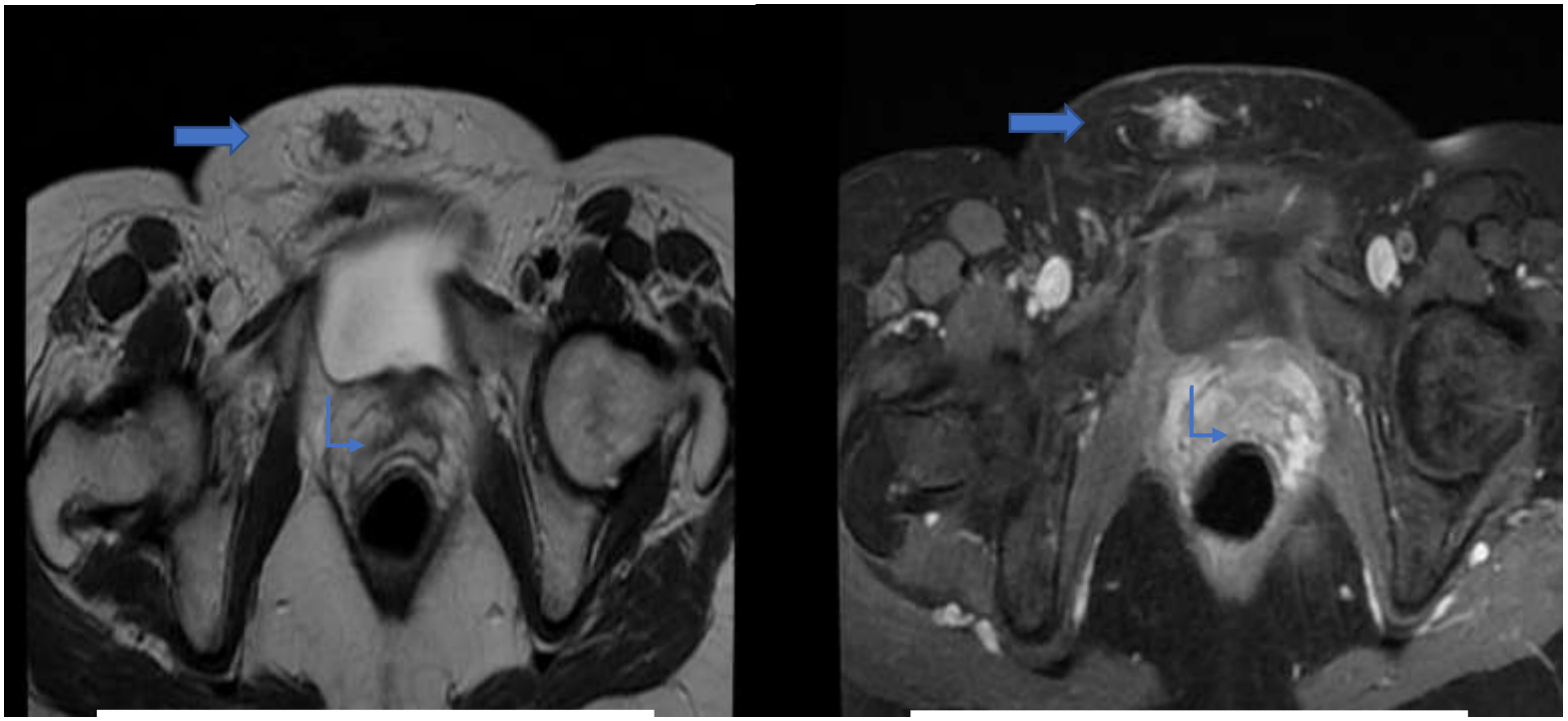
Introduction:

The true prevalence of extra-pelvic endometriosis is unknown but is believed to range between 1 and 12% of patients with pelvic endometriosis.[2] Endometriosis can appear at any organ and has the unique ability to maintain its functionality in distant locations away from the genital organs. Catamenial extra-pelvic symptoms associated with a person's menstrual cycle should trigger a high degree of suspicion for endometriosis regardless of anatomic location. Through this presentation, we will shed light on three cases of extra-pelvic endometriosis and the corresponding MRI findings.

Clinical Observation:

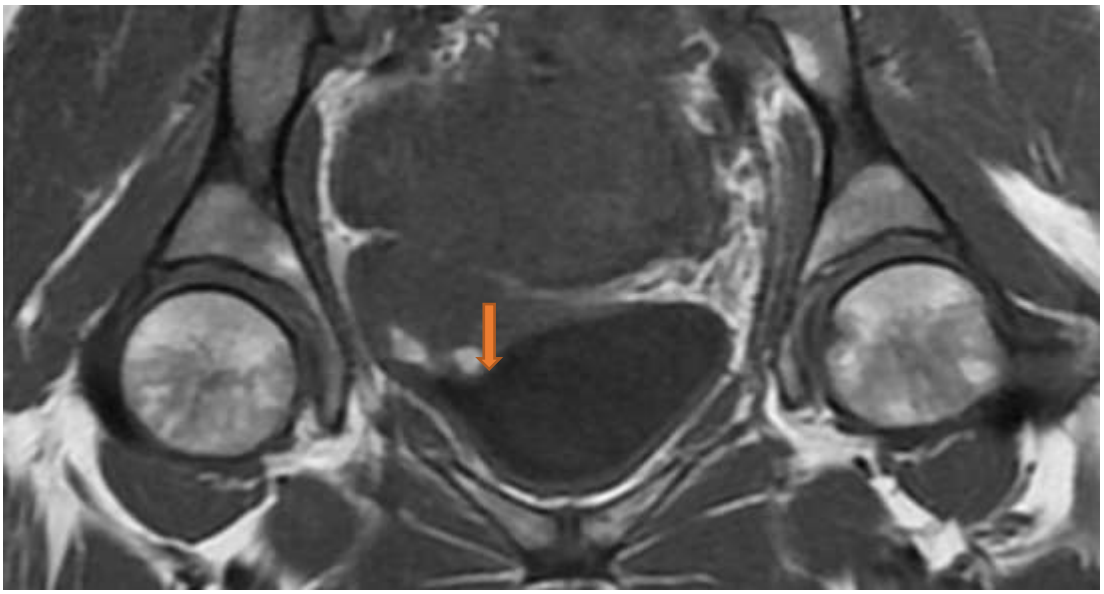
The first patient is a 43-year-old woman who was admitted to the emergency department for the management of a hard hypogastric mass extending to the umbilicus. An ultrasound and an abdominal-pelvic CT scan were performed, revealing a polymyomatous uterus with two bilateral cystic formations. A pelvic MRI was then carried out to better characterize these lesions, which revealed, in addition to the previously described lesions, signs of deep endometriosis, including thickening of the torus and uterosacral ligaments, a left ovarian endometrioma, as well as anterior parietal endometriosis, which was demonstrated on MRI by a heterogeneous T2 hypointensity (fig 1). The second patient is a 38-year-old woman, admitted to the emergency department for the management of an obstructive syndrome. A CT scan revealed thickening of the rectosigmoid junction, which was initially misinterpreted as a rectal tumor, with a colonoscopy suggesting subacute colitis without specific features. The patient was subsequently operated on and underwent resection of the presumed tumor. The pathological examination revealed that it was actually colonic endometriosis. A pelvic MRI was performed afterward, showing multiple endometriotic lesions in the bladder, the vesicouterine pouch, the uterosacral ligaments, the torus, and the rectum(fig 2). The third case involves a 35-year-old woman with a history of two cesarean deliveries, who presented with persistent pain in the left iliac fossa. An ultrasound was initially performed, suggesting an endometrioma on the anterior abdominal wall. An MRI was subsequently conducted, which revealed an endometriotic nodule affecting the inner part of the left rectus muscle, showing T1 hyperintensity and heterogeneous T2 signal, which did not disappear after fat saturation (fig 3).

International Journal of Academic Health and Medical Research (IJAHMR)
ISSN: 2643-9824
Vol. 9 Issue 7 July - 2025, Pages: 25-28



1a 1b

Figure 1 : Axial T2 slices (1a) and T1 slices (1b) reveal a lesion in the anterior pelvic wall, with heterogeneous hypointensity on T2, containing a spot of hyperintensity on T1.



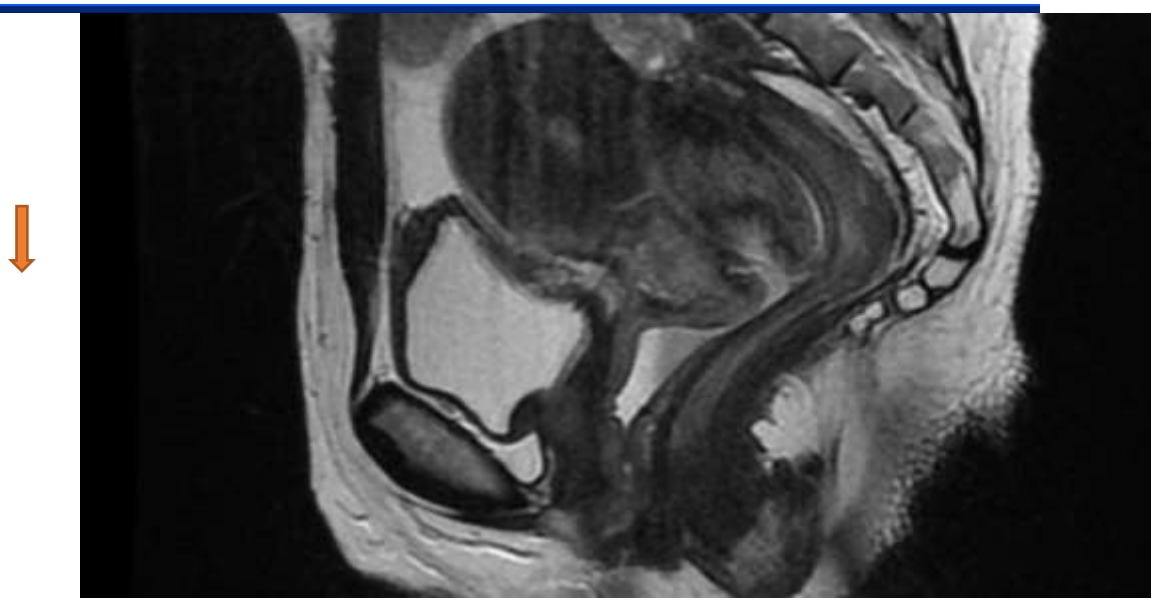
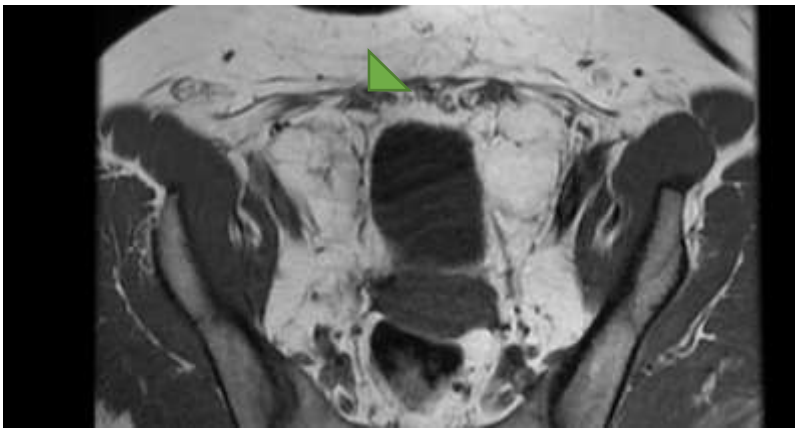
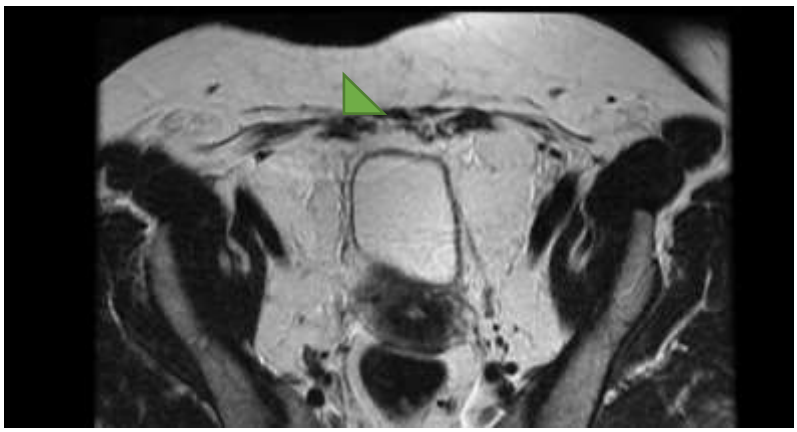


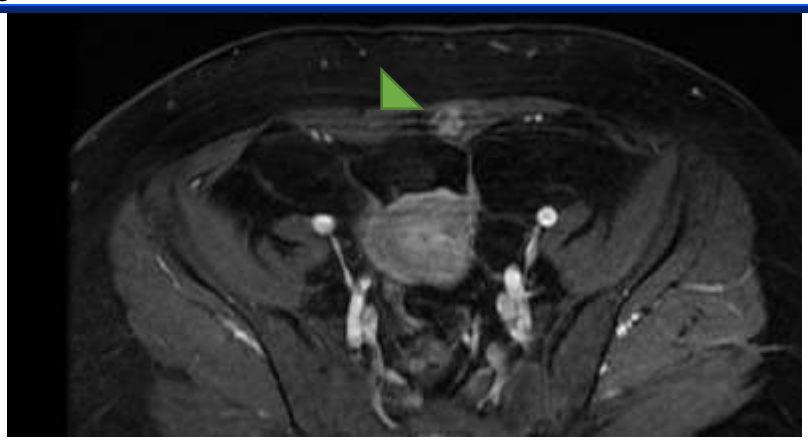
Figure 2: Axial T2 and coronal T1 slices from the pelvic MRI show fibrous thickening with hypointensity T2 , hyperintensity T1 of the blad dome



3a



3b



3c

Figure 3: Axial T2 slices from the MRI show the endometriotic nodule in the left rectus muscle with T2 and T1 hyperintensity (3a , 3b) , with no disappearance of the T2 hyperintensity after fat saturation (3c).

Discussion:

While endometriosis is often associated with pelvic pain and gynecological symptoms, the extra-pelvic form can be more difficult to diagnose due to the variety of clinical symptoms, which may include abdominal, chest, urinary, or even neurological pain. This variety of clinical manifestations is related to the location of the endometriotic lesions, which can affect organs such as the lungs, diaphragm, urinary system, or even muscles and subcutaneous tissues.The diagnosis of extra-pelvic endometriosis often relies on a combination of clinical examination, imaging tests such as MRI, and diagnostic surgery. MRI, in particular, plays a crucial role in detecting and assessing the size and location of the lesions. It not only confirms the presence of endometriosis but also helps differentiate benign lesions from adjacent structures, contributing to a more accurate diagnosis. Treatment of extra-pelvic endometriosis can be complex and requires a multidisciplinary approach, combining symptom management through medical treatments (such as analgesics and hormonal therapies) and, in some cases, surgical interventions to remove the endometriotic lesions. However, despite advances in management, the long-term prognosis for patients often remains uncertain, with a risk of recurrence and persistent symptoms. It is essential to continue advancing research on this form of the disease to better understand its mechanisms and improve available therapeutic options.

Conclusion:

Endometriosis is a chronic, inflammatory dissease that primarily impacts pelvic organs. However, it can also extend to distant areas, including the abdominal wall and thoracic cavity. MRI is an effective method for diagnosing and detecting endometriosis lesions throughout the entire body. It not only identifies the most common areas affected by this condition but also examines all potential sites involved.

Références :

1. **Nothnick, W. B.** (2011). *The pathogenesis of endometriosis and its impact on fertility: A review of the pathophysiology and diagnosis of the disease*. *Journal of Assisted Reproduction and Genetics, 28*(8), 717-725.
2. **Liu, Z., et al.** (2020). *Extra-pelvic endometriosis: A review of imaging and treatment options*. *Radiologic Clinics of North America, 58*(5), 925-937.
3. **Gizzo, S., et al.** (2014). *Extra-pelvic endometriosis: Epidemiology, clinical features, and diagnostic techniques*. *Minerva Ginecologica, 66*(3), 235-248.
4. **Chapron, C., et al.** (2011). *Endometriosis: Pathogenesis and management*. *Fertility and Sterility, 96*(4), 831-838.